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09/858,080	05/15/2001	Kevin Collins	10006721-1	2538

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EXAMINER	
BATURAY, ALICIA	
ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/858,080	COLLINS ET AL.	
	Examiner	Art Unit	
	Alicia Baturay	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), which was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 March 2005 has been entered.

2. Claim 1, 5, 8, 13, and 20 were amended.

3. Claim 1-21 are pending in this Office Action.

Response to Amendment

4. The rejection of claim 7 under 35 U.S.C. 112, second paragraph, is withdrawn, and the examiner appreciates Applicant's suggestion.

5. Applicant's arguments have been fully considered but they are not persuasive for the reasons set forth below.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 1, 4, 5, 8, 13, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan et al. (U.S. 6,640,278) and further in view of Kanada (US 2001/0039576 A1).

8. With respect to claim 1, Nolan teaches a method for managing transactions at a network storage device (Nolan, col. 1, lines 27-29) comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy (Kanada, page 1, paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

9. With respect to claim 4, Nolan teaches the invention described in claim 1, including ordering the transaction among other transactions in a queue at the network storage device (Nolan, Fig. 29; col. 29, lines 29-35).

10. With respect to claim 5, Nolan teaches managing transactions at a network storage device (Nolan, col. 1, lines 27-29) comprising:

Prioritizing a plurality of incoming transactions received at the network storage device relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches generating a usage policy for the network storage device and distributing the usage policy to the network storage device (Kanada, Fig. 2 and Fig. 3B, element 387; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

11. With respect to claim 8, Nolan teaches an apparatus for managing a plurality of incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at a network storage device (Nolan, col. 2, lines 46-49), comprising:

Computer readable storage medium at the network storage device (Nolan, col. 2, lines 46-49) and comprising program code for prioritizing the plurality of incoming transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy stored on the computer readable storage medium (Kanada, page 1, paragraph 8); and computer readable program code residing in the computer readable storage medium, based on the usage policy (Kanada, Fig. 3B, element 387; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

12. With respect to claim 13, Nolan teaches an apparatus for managing a plurality of incoming and outgoing transactions at a network storage device (Nolan, col. 28, line 66 – col. 29, line 35), comprising:

Computer readable storage medium (Nolan, col. 2, lines 46-49); and computer readable program code residing in the storage medium, including program code for prioritizing the plurality of incoming and outgoing transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy being stored on a network storage device (Kanada, page 2, paragraph 28) and ability to prioritize transactions based on a usage policy (Kanada, Fig. 3B, element 387; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

13. With respect to claim 14, Nolan teaches the invention described in claim 13, including computer readable storage medium (Nolan, col. 2, lines 46-49); and computer readable program code residing in the storage medium, including program code for prioritizing the plurality of incoming and outgoing transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches the ability to define a usage policy at a policy management server and the ability to distribute it to a network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

14. With respect to claim 16, Nolan teaches the invention described in claim 13, including a method for managing transactions at a network storage device (Nolan, col. 1, lines 27-29) comprising:

Computer readable storage medium (Nolan, col. 2, lines 46-49); and computer readable program code residing in the storage medium, including program code for prioritizing the plurality of incoming and outgoing transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy (Kanada, page 1, paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

15. With respect to claim 17, Nolan teaches the invention described in claim 16, including computer readable storage medium (Nolan, col. 2, lines 46-49); and computer readable program code residing in the storage medium, including program code for prioritizing the plurality of incoming and outgoing transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches the ability to install on a policy management server (Kanada, page 3, paragraph 66), define a usage policy and install the policy on a network storage device (Kanada, page 14, paragraph 188), and prioritize a number of transactions (Kanada, Fig. 3B, element 387; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

16. With respect to claim 18, Nolan teaches the invention described in claim 13, including where the transactions are incoming to the network storage device (Nolan, col. 28, line 66 – col. 29, line 35).

17. With respect to claim 19, Nolan teaches the invention described in claim 13, including where the transactions are outgoing from the network storage device (Nolan, col. 28, line 66 – col. 29, line 35).

18. Claim 2, 6, 9, and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan in view of Kanada and further in view of Gibson et al ("Network Attached Storage Architecture, 2000).

19. With respect to claim 2, Nolan teaches the invention described in claim 1, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal

human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach use of a NAS.

However, Gibson states that the technologies of NAS and SAN are converging (page 42, "Converging of NAS and SAN").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Gibson in order to enable the use of a NAS. One would be motivated to do so in order to view storage techniques as interchangeable alternatives for solving the same set of customer problems.

20. With respect to claim 6, Nolan teaches the invention described in claim 5, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach use of a NAS.

However, Gibson states that the technologies of NAS and SAN are converging (page 42, "Converging of NAS and SAN").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Gibson in order to enable the use of a NAS. One would be motivated to do so in order to view storage techniques as interchangeable alternatives for solving the same set of customer problems.

21. With respect to claim 9, Nolan teaches the invention described in claim 8, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach use of a NAS.

However, Gibson states that the technologies of NAS and SAN are converging (page 42, "Converging of NAS and SAN").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Gibson in order to enable the use of a NAS. One would be motivated to do so in order to view storage techniques as interchangeable alternatives for solving the same set of customer problems.

22. With respect to claim 15, Nolan teaches the invention described in claim 13, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including identifying a network storage device on a network (Nolan, col. 25, lines 26-29).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach use of a NAS.

However, Gibson states that the technologies of NAS and SAN are converging (page 42, "Converging of NAS and SAN").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Gibson in order to enable the use of a NAS. One would be motivated to do so in order to view storage techniques as interchangeable alternatives for solving the same set of customer problems.

23. Claim 3, 7, 10, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan in view of Kanada and further in view of Comer ("Internetworking with TCP/IP, 1995).

24. With respect to claim 3, Nolan teaches the invention described in claim 1, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches reading meta data from the transaction; and comparing the meta data to a number of rules defined in the usage policy, where assigning priority to the

transaction is based on at least part of the meta data satisfying at least one condition of the number of rules (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches reading meta data from the transaction; and comparing the meta data to a number of rules defined in the usage policy, where assigning priority to the transaction is based on at least part of the meta data satisfying at least one condition of the number of rules (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach the use of meta data.

However, the Microsoft Computer Dictionary defines "meta data" as "data about data." Comer teaches the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Comer in order to enable the use of meta data. One would have been motivated to do so because all three references discuss the TCP/IP protocol (Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

25. With respect to claim 7, Nolan teaches the invention described in claim 5, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy comprising of a number of rules (Kanada, Fig. 4A; page 2, paragraph 21), each defining a meta data and a corresponding priority and where the policy assigns a priority to a transaction if it satisfies a rule (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches reading meta data from the transaction; and comparing the meta data to a number of rules defined in the usage policy, where assigning priority to the transaction is based on at least part of the meta data satisfying at least one condition of the number of rules (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal

human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach the use of meta data.

However, the Microsoft Computer Dictionary defines "meta data" as "data about data." Comer teaches the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Comer in order to enable the use of meta data. One would have been motivated to do so because all three references discuss the TCP/IP protocol (Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

26. With respect to claim 10, Nolan teaches the invention described in claim 8, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy comprising of a number of rules (Kanada, Fig. 4A; page 2, paragraph 21), which define a number of priorities for a number of meta data, where the program code assigns one of the priorities to one of the transactions when the transaction satisfies at least one of the rules (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 1, including a method further comprising:

Receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy comprising of a number of rules (Kanada, Fig. 4A; page 2, paragraph 21), which define a number of priorities for a number of meta data, where the program code assigns one of the priorities to one of the transactions when the transaction satisfies at least one of the rules (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach the use of meta data.

However, the Microsoft Computer Dictionary defines "meta data" as "data about data." Comer teaches the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Comer in order to enable the use of meta data. One would have been motivated to do so because all three references discuss the TCP/IP protocol (Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

27. With respect to claim 11, Nolan teaches the invention described in claim 8, including receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming

transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches the use of a packet being transmitted from one network device to another (Kanada, page 1, paragraph 17), and the meta data field being read against a usage policy (Kanada, page 1, paragraph 19) and the transaction ordered in a queue according to priority (Kanada, page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 8, including receiving an incoming transaction (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the incoming transaction (Nolan, col. 27. lines 65-67) relative to other incoming transactions (Nolan, col. 28, line 66 – col. 29, line 35) at the network storage device.

Nolan does not explicitly teach a usage policy.

However, Kanada teaches the use of a packet being transmitted from one network device to another (Kanada, page 1, paragraph 17), and the meta data field being read against a usage policy (Kanada, page 1, paragraph 19) and the transaction ordered in a queue according to priority (Kanada, page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach the use of meta data.

However, the Microsoft Computer Dictionary defines "meta data" as "data about data." Comer teaches the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Comer in order to enable the use of meta data. One would have been motivated to do so because all three references discuss the TCP/IP protocol (Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

28. With respect to claim 20, Nolan teaches an apparatus for managing a number of incoming and outgoing transactions (Nolan, col. 28, line 66 – col. 29, line 35) at a network storage device (Nolan, col. 2, lines 46-49).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches means for reading meta data from the number of incoming and outgoing transactions at the network storage device; and means for prioritizing the number of incoming and outgoing transactions based at least on part on the meta data, where the prioritizing means reside at the network storage device (Kanada, Fig. 3B, element 381; page 10, paragraph 152).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

29. With respect to claim 21, Nolan teaches the invention described in claim 20, including an apparatus means for transmitting the number of transactions based at least on part on priority (Nolan, col. 28, line 66 – col. 29, line 35).

30. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan in view of Kanada and further in view of Mahon, et al ("Requirements for a Policy Management System," 1999).

31. With respect to claim 12, Nolan teaches the invention described in claim 8, including computer readable storage medium at the network storage device (Nolan, col. 2, lines 46-49) and comprising program code for prioritizing the plurality of incoming transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy comprising of a number of rules (Kanada, page 2, paragraph 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

Nolan teaches the invention described in claim 8, including computer readable storage medium at the network storage device (Nolan, col. 2, lines 46-49) and comprising program code for prioritizing the plurality of incoming transactions relative to one another (Nolan, col. 28, line 66 – col. 29, line 35).

Nolan does not explicitly teach a usage policy.

However, Kanada teaches a usage policy comprising of a number of rules (Kanada, page 2, paragraph 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nolan in view of Kanada in order to enable the use of a usage policy. One would have been motivated to do so in order to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly.

The combination of Nolan and Kanada does not explicitly teach default rules.

However, Mahon teaches a default rule that is enacted if none of the other rules match the action type (Mahon, page 69).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Nolan and Kanada in view of Mahon in order to allow for the use of default rules. One would be motivated to do so to assure that the rules set forth on the network account for any contingencies and to contribute toward the goal of minimal human network administration.

Response to Arguments

32. Applicant's arguments filed 3 November 2004 have been fully considered, but they are not persuasive; with the exception of the number of references used for the rejection of claim 21.

33. ***Applicant Argues:*** With respect to claim 1, Applicant states "But Nolan fails to disclose assigning priority to any of the received transactions. Kanada discloses a network policy transmission method from a policy server to a network node. Kanada does not disclose a usage policy. There is no discussion in Kanada of using a usage policy to assign priority to transactions."

In response: The examiner respectfully submits that Nolan teaches "the storage server receives a control signal initiating a hot copy process...parameters are maintained on the storage server...indicating a relative priority of the hot copy process with respect to the data access requests from the client processor...(Nolan, col. 27, lines 53-62). Applicant discloses in the specification that "The usage policy defines a number of (i.e., one or more) rules based on a condition and a corresponding priority (page 8, lines 26-28). Kanada discloses "A policy is normally described as a sequence of rules called policy rules. A policy rule is a condition-action type rule. This means that action to take if a condition is true is described as a rule (Kanada, page 1, paragraph 8).

34. ***Applicant Argues:*** With respect to claim 3, Applicant states that "comparing said meta data to a number of rules defined in said usage policy, wherein assigning said priority to said transaction is based on at least part of said meta data satisfying at least on condition of said number of rules. There is simply no teaching or suggestion in Nolan or Kanada of at least these recitations."

In response: The examiner respectfully submits that the Microsoft Computer Dictionary defines "meta data" as "data about data." Kanada discusses "four types of policy rules" available for an operator to input into the policy server (Kanada, page 4, paragraph 72) and the scheduling rule containing "a condition, label, action items, rate unit, minimum rate, maximum rate, and parent scheduling label" (Kanada, page 5, paragraph 84). These items all constitute data about data with regards to a usage policy. Kanada also discloses "In the rule 1708, a string of 198.168.4.1 is specified in the field of the lower end of source IP address of flow 1721 and the same is also specified in the field of upper end of source IP address of flow 1722. Thus, the rule 1708 is effective only for packets originating from the IP address 192.168.4.1" (Kanada, page 10, paragraph 148). This states the rules can then be compared against incoming data, and sorted accordingly into queues (Kanada, page 9, paragraph 137). The limitations in regards to priority are discussed above for claim 1.

35. ***Applicant Argues:*** With respect to claim 5, Applicant states that Nolan fails to disclose "prioritizing a plurality of transactions received at said network storage device relative to one another."

In response: The examiner respectfully submits that Nolan states "The storage server receives a control signal initiating a hot copy process...Parameters are maintained on the storage server... indicating a relative priority of the background hot copy process with respect to the data access requests from the client processor" (Nolan, col. 27, lines 53-62).

36. ***Applicant Argues:*** With respect to claim8 and 13, Applicant states that Nolan and Kanada fail to disclose "program code for prioritizing said plurality of received transactions relative to one another."

In response: The examiner respectfully submits that the limitations are discussed above for claim 1 and 5.

37. ***Applicant Argues:*** With respect to claim 15, Applicant states "Gibson fails to teach or suggest program code for identifying said network storage device."

In response: The examiner respectfully submits that Nolan discloses "The tree of all storage (used and unused) is shown on the left half of the display in this example, with each storage element having an icon representing what type it is and some identifying name or ID" (Nolan, col. 25, lines 26-29).

38. ***Applicant Argues:*** With respect to claim 7, Applicant states that "there is no teaching or suggestion here of any rules which include meta data and corresponding priorities."

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

39. ***Applicant Argues:*** With respect to claim 10, Applicant states that it is unclear how the references teach or suggest "said usage policy comprises a number of rules which define a number of priorities for a number of meta data."

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

40. ***Applicant Argues:*** With respect to claim 11, Applicant states "said program code reads said at least one meta data field and orders said number of transactions among other transactions in a queue based on said at least one meta data field satisfying a condition of a rule in said usage policy...Priority scheduling in Kanada has nothing to do with prioritizing the transactions among other transactions."

In response: The examiner respectfully submits that the limitations are discussed above for claim 1 and 5.

41. ***Applicant Argues:*** With respect to claim 20, Applicant states that "there is no teaching or suggestion that the transactions are prioritized based on meta data."

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

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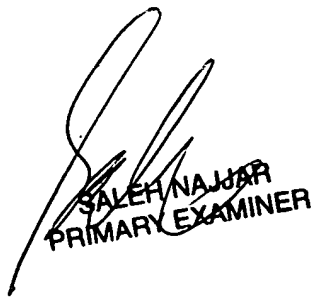
Alicia Baturay
August 23, 2005